

A NEW SPECIES OF SPHECODOGASTRA ASSOCIATED
WITH OENOTHERA IN EASTERN UTAH, NEW
MEXICO AND WESTERN TEXAS

(Hymenoptera: Halictidae)

E. G. LINSLEY AND J. W. MACSWAIN¹

University of California, Berkeley

Sphecodogastra Ashmead (1899) has been variously treated as a distinct genus (Mitchell, 1960), a subgenus of *Halictus* (Stevens, 1920) and a subgenus of *Lasioglossum* (Michener, 1951). The type species, *Sphecodes texana* Cresson (1872), collects pollen after sunset from the flowers of such Onagraceae as *Oenothera* (*Megapterium*) *missouriensis*, *Oenothera* (*Anogra*) spp., *Oenothera* (*Oenothera*) *strigosa*, *Oenothera* (*Raimannia*) *rhubipetala* (Graenicher, 1911; Stevens, 1920) and as a result of its nocturnal habit, females are often attracted to light. Morphologically, the species is remarkable for the enlarged ocelli which nearly fill the vertex between the summits of the compound eyes, the greatly reduced pollen collecting structures of the hind legs (which consist of a row of erect simple hairs on the trochanters, a row of erect hooked hairs on the lower margin of the femora, and loose, erect and suberect plumose hairs on the inner side of the tibia), and the ferruginous abdomen, a feature unusual in non-parasitic North American halictines.

Although Ashmead established *Sphecodogastra* as a monobasic genus, several other species have been subsequently added which share with *S. texana* one or more adaptive features associated with the collection of pollen from Onagraceae, including *Halictus abberans* Crawford, *Halictus galpinsiae* Cockerell, *Halictus lusorius* Cresson, and *Halictus* (*Evyllaesus*) *oenotherae* Stevens. However, these added species are crepuscular or matinal bees, or both, not truly nocturnal, and as pointed out by Hurd (see Linsley, 1958), they are closely related to species included in *Lasioglossum*, subgenus *Evyllaesus* by Michener (1951). We prefer to see them assigned to that group, since they agree with *Evyllaesus* in basic characters and in general facies. They also share with species in *Evyllaesus* and most of the other subgenera of *Lasioglossum* a distinct lateral carina on the propodeum, which is lacking in the subgenus *Sphecodogastra* as here restricted.

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The species described below agrees with *L. (S.) texana* in having enlarged ocelli, a simple propodeum, similarly formed scopae of the posterior legs and a ferruginous abdomen. Like *L. (S.) texana* it is a nocturnal species, flying after dark and collecting pollen from large, white flowered evening primroses (*Oenothera*).

Lasioglossum (Sphecodogastra) noctivaga

Linsley & MacSwain, new species

Female: Integument black, antennae, legs, tegulae, wing veins and abdomen ferruginous; pubescence white. *Head* wider than long (12:10); antennae relatively long, flagellum twice as long as scape, segments beyond the second pale rufotestaceous; ocelli very large, diameter of median ocellus equal to one-third of shortest distance between summits of compound eyes; eyes with inner margins not converging below, lower lobes more widely separated than upper lobes; vertex obscurely, finely punctate; face above antennae moderately closely, finely, deeply punctate, punctures separated by one diameter or less; supraclypeal area feebly shining, finely, not densely punctate; clypeus short, apex broad, three times as wide as distance between antennal insertions, projecting slightly less than one-third below suborbital line, surface feebly shining, finely, sparsely, irregularly punctate; mandibles elongate, slender, apex extending beyond tooth for one-third of total length, reaching to base of opposing mandible in repose. *Mesosoma* with decumbent plumose hairs near margins of terga, and longer, erect hairs otherwise; mesoscutum shining, feebly reticulate, punctures distinctly separated, irregularly spaced in discal area, denser laterally, scutellum more finely punctate, punctures denser medially and near margins; propodeum irregularly rugulose at base; wings hyaline; legs darker basally, scopa of posterior legs consisting of a row of erect simple hairs on trochanters, a row of erect and apically hooked hairs on lower margin of femora, and loose, erect and suberect plumose hairs on inner side of tibiae. *Metasoma* shining, terga obscurely punctate laterally, pubescence sparse on disc, longer, denser, plumose toward sides and posterior margins. Length 12 mm., anterior wing 9.5.

Holotype female (California Academy of Sciences, Entomology) and three female paratypes from ROOSEVELT, DUCHESNE COUNTY, UTAH, June 15, 1956 (J. L. Eastin). Additional paratypes; two females from Ojo Caliente, Taos County, New Mexico, taken at light between 8:30 p.m. and 9:00 p.m., July 11, 1959 (E. G. Linsley), one female from Pinedale, McKinley County, New Mexico, July 22, 1948 (L. C. Wyman), and one female from 9.5 miles south of Monahans, Ward County, Texas, collecting pollen from *Oenothera hartwegii*, May 11, 1959 (D. P. Gregory). The paratype from Pinedale, New Mexico is in the United States National Museum; the remainder are deposited in the collections of the California Insect Survey, University of California, Berkeley.

This species superficially resembles *Lasioglossum (Sphecodogastra) texana* (Cresson), but the average size is somewhat larger and the anterior wings are proportionally longer. The most striking differences involve characters of the head and females differ in this respect as follows:

Antennae with flagellum twice as long as scape; eyes not converging below; ocelli larger, diameter of median ocellus equal to one-third of distance between eyes; clypeus broad, short, projecting less than one-third of its length, apex with about 12 long setae; mandibles with apex extending one-third of total length beyond tooth, reaching to base of opposite mandible . . . *noctivaga*

Antennae with flagellum distinctly less than twice as long as scape; eyes converging below; ocelli a little smaller, diameter of median ocellus equal to about one-fourth of distance between the eyes; clypeus more elongate, projecting more than one-third of its length, apex with about 24 long setae; mandibles less than one-fourth of total length beyond tooth, reaching just beyond opposite apical lateral angle of clypeus . . . *texana*

In distribution, known records suggest that *noctivaga* occurs generally west of the range of *texana* but the two are not wholly allopatric, having been taken on the same plants in Ward County, Texas.

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